

To: Peter Butler[butlerpeter2@gmail.com]
From: Way, Steven
Sent: Tue 2/18/2014 10:53:34 PM
Subject: RE: AMD Brainstorming Session

Peter,

Thank you for the invitation, I look forward to participating in the discussion in April.

Steve

Federal On-Scene Coordinator

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From: Peter Butler [mailto:butlerpeter2@gmail.com]
Sent: Tuesday, February 18, 2014 10:52 AM
To: Way, Steven
Subject: AMD Brainstorming Session

Dear Steve –

The Animas River Stakeholders Group would like to cordially invite you to a brainstorming session on exploring less-expensive methods for treating acid mine drainage (AMD) from abandoned and inactive mines on the afternoon of Tuesday, April 1st, in southeast Denver. You are someone we identified as having a great deal of expertise in this issue.

The Animas River Stakeholders Group (ARSG) is essentially a non-profit group consisting of mining companies, environmental organizations, federal, state, and local governmental entities and interested citizens working cooperatively for the past twenty years to improve water quality in the Animas River Basin by remediating historic mine sites in the Silverton area. Almost 60 mine remediation projects have been completed, and we've seen some substantial improvements in water quality, especially in Mineral Creek. Our website is <http://www.animasriverstakeholdersgroup.org/>

By far the biggest remaining source of mining-related metal loading in the Animas Basin is upper Cement Creek where there is approximately 600-800 gallons per minute of untreated mine drainage discharging from four adits in close proximity to one another. Much of this drainage is relatively new through a complex set of circumstances. EPA believes the site could qualify for a Superfund listing, but there is a lot of local opposition to such a designation, and ARSG is attempting to find a cooperative solution to this issue. We believe that finding less expensive methods of removing metals (compared to high density sludge lime treatment), particularly with regard to annual operating costs, will be a key part of any solution.

The brainstorming session will focus on technical and cost issues with regard to metal removal from mine discharge. We will avoid issues of funding, responsibility, liability and other legal constraints. This is the opposite approach of how engineers usually proceed. Typically, someone is given a whole set of funding, permitting, legal and site specific constraints and asked to come up with a solution to fit within those parameters. At some point, those constraints will need to be addressed, but initially we would like to explore a whole host of interesting options that might be out there.

Industry, society, and the environment could all benefit from less expensive methods of metal removal from mine drainage, especially for inactive and abandoned mines. We hope you would view this brainstorming session as a chance to think creatively with colleagues about ideas that maybe you haven't been able to pursue in the past because of strict permit limits, client needs, liability issues, funding, *etc.* This is an opportunity to think outside the box, and perhaps it will lead future innovations in the treatment of AMD.

We are hoping to have about 25-30 people participate in this brainstorming session and are being pretty selective as to who we invite. Unfortunately, we don't have funding to compensate you for your time, but we will offer to pay for a nice dinner after the afternoon session.

We look forward to hearing from you and hope you can join us.

Peter Butler, Ph.D.

Co-Coordinator

Animas River Stakeholders Group

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